Public Notice

City of Durham
Department of Water Management
PWSID # NC 03-32-010

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

The City of Durham's Drinking Water Contained Levels of Total Haloacetic Acids Above Drinking Water Standards

The City routinely monitors for the presence of drinking water contaminants. The compounds noted above, Total Haloacetic Acids (HAAs), are collected and analyzed on a quarterly basis at several sites throughout the City's distribution system. The test results received by Department of Water Management on March 11, 2009 show that the City has exceeded the drinking water standard for HAAs when compiled with the results of the previous three quarters. Although this is ***not an emergency***, as our customers, you have a right to know what happened, what you should do, and what we are doing to correct this situation.

Compliance for these compounds is determined by an annual running average value which is calculated by averaging the test results of four consecutive quarter sampling events. The annual running average standard for the HAAs is 0.060 milligrams per liter (mg/L). The City's annual running average level of HAAs for the last 12 months is 0.064 milligrams per liter (mg/L).

What should I do?
You ***do not*** need to use an alternative (e.g., bottled) water supply. Customers may wish to evaluate the effectiveness of installing a carbon point of use filter to remove organics. If you do so, please note the maintenance instructions for purchased point-of-use devices. However, if you have specific health concerns, consult your doctor.

What does this mean?
This is not an immediate risk. If it had been, you would have been notified immediately. ***However, some people who drink water containing haloacetic acids in excess of the maximum contaminant level (MCL) over many years (for example, 2 liters per day for 70 years) may experience problems with their liver, kidneys, or central nervous system and may have an increased risk of getting cancer***.

What happened?
All water supply lakes have varying levels of naturally occurring organic matter. Higher levels may occur in warmer seasons and are more difficult to remove through the treatment process. This can result in the formation of disinfection by-products such as HAAs during the disinfection process. During the past year, the City's source water has contained historically high levels of naturally occurring organic material. This natural phenomenon is directly linked to the ending of last year's drought and the vegetation that grew below the normal lake waterline. As elevated organic levels persisted in the lake source waters, it became clear that significant process changes would need to be considered to counteract the increased organic material.

What is being done?
Once staff determined that the high organic content would continue to be an issue, we accelerated research and engineering options to improve, if not resolve, the situation. As a result, staff received provisional State approval in December 2008 to initiate a new treatment regime to address this concern. The department's Capital Improvement Program also has plans to further upgrade the water treatment facilities to address current and future disinfection by-product regulations.

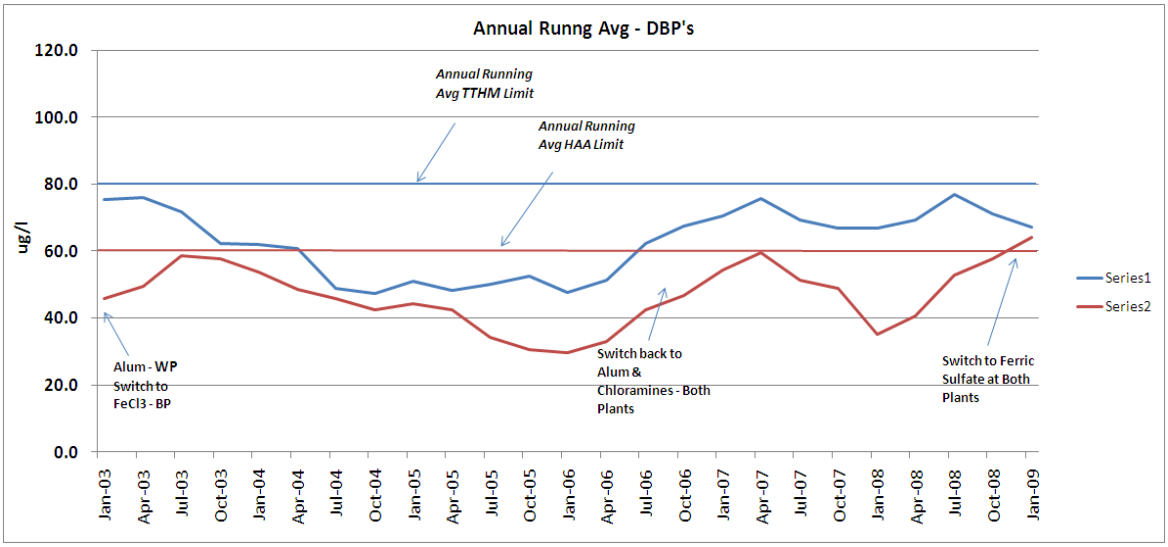
When will the problem be corrected?
The problem has been corrected! Though the City has exceeded the annual running average for HAAs, the most recent round of HAA testing conducted throughout the distribution system has demonstrated that even with the continued high levels of naturally occurring organic material present in the City's source water, the drinking water in the distribution system currently being delivered to our customers is well below the 0.060 mg/L standard for HAAs.

Please note that with continued implementation of the current treatment regime and additional treatment upgrades scheduled to take place over the next several years, we do not anticipate a recurrence of this system-wide exceedance.

Additional information about disinfection, water treatment and disinfection byproducts

Disinfection of drinking water is vital to the protecting public health against disease. Water providers disinfect drinking water to kill disease-causing organisms found in all water supplies and the use of disinfectants has made many once-common diseases a thing of the distant past in the United States. The U.S. Centers for Disease Control and Prevention recognizes the control of infectious diseases resulting from cleaner water and improved sanitation as one of the top 10 public health achievements of the 20th century. By comparison, the risks to health from exposure to disinfection byproducts (DBPs) such as Haloacetic Acids (HAAs) are extremely small. The City of Durham is committed to providing drinking water that maximizes public health protection and minimizes potential health risks. We will continue to follow research related to reducing the formation of DBPs and to adopting processes and techniques that will minimize formation of these compounds.

The City was well on the way to reducing the formation of DBPs by changing the disinfection methodology in 2002 to chloramination. This strategy was followed by changing coagulants at the larger of the treatment facilities, the Brown Water Treatment Plant, to ferric chloride in 2003. These process changes were showing promise with significant reductions to both HAAs and Total Trihalomethanes (TTHMs). However, due to concerns about lead leaching from plumbing in area homes and the potential acute issues associated with lead exposure, the City reverted to using the aluminum sulfate as a coagulant in July 2006. After this change, the levels of HAAs and TTHMs began to increase. Staff has undertaken a number of measures to both reduce the potential of lead leaching and the formation of DBPs in the system. Below is a chart that illustrates various testing times and when we began to take action to reduce both TTHM and HAA levels as our results came back that indicated increases in these byproduct levels.



Please share this information with all the other people who drink City of Durham water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

The City of Durham is committed to implementing the necessary measures and making the capital investments essential to ensuring that Durham's water remains safe to drink.

If you have any questions, please contact:
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